

CHAPTER III

RESEARCH METHODOLOGY

A. Research Design

This research was a kind of an experimental research. Experimental research procedures are ideally suited for the study. Experimental designs are procedures in quantitative research in which the investigator determines whether an activity or material make a difference in result for participations. Experimental research is the only type of research that can test hypotheses to establish cause-and-effect relationship.¹ This design was referred to as quasi experimental design. Gay and Airasian stated that a quasi experimental design is used when the researcher keeps the students in existing classroom intact and the entire classroom are assigned to treatment.² In this research, the type of quasi experimental design was the nonequivalent control group design.

In conducting this research, the researcher took two classes: one class was an experimental class taught by oral questionnaire technique, and another was as a control class by conventional technique. The success of the treatment was determined by comparing pretest and post-test scores and can be designed by following table.³

¹ L.R Gay. 2000. *Educational Research*. Tokyo: Hall of Japan

² *Ibid.*

³ *Ibid.* p. 392.

Table III. 1
The Research Design

Class	Pre-test	Treatment	Post-test
Experiment	X ₁	T	X ₂
Control	Y ₁	-	Y ₂

Where:

Experiment : Experimental Group

Control : Control group

T : Treatment Experimental Group

X₁ and Y₁ : The pretest for both two groups

X₂ and Y₂ : The post-test for both two groups

B. The Time and Location of the Research

The research was conducted at MTs Hidayatul Muta'alim Mengkirau, Meranti Regency. It is located in Mengkirau Village, Merbau District, Meranti Regency. This research was conducted in the second semester started from March to April 2014 in academic year 2014/2015.

C. Subject of the Research

The subject of the research was the seventh grade students at MTs Hidayatul Muta'alim Mengkirau, Meranti Regency.

D. The Object of the Research

The object of this research was the effect of using oral questionnaires technique on the students' speaking ability.

E. Population and Sample

The population of this research was all the seventh grade students at MTs Hidayatul Muta'alim Mengkirau, Meranti Regency with the total population 30 students, with two classes. Where VII A consisted of 10 females and 5 males, while VII B consisted of 8 females and 7 males, (the seventh grade students MTs Hidayatul Muta'alim Mengkirau, Meranti Regency in academic year 2014/2015). To make it clear can be seen from the table below:

Table III. 2
The Population and Sample of the Research

No.	Class	Population	Sample
1.	VII A	15	Experimental class
2.	VII B	15	Control class
	Total	30	30

The population was not so large to be the sample in this research. The researcher used total sampling to takes them all of the population as the sample of this research. Feliatra states that total sampling is deciding all members of population as sample.⁴ According to Suharsimi Arikunto in Wildatul Khairiah, if the amount of the population

⁴Feliatra. 2011. *Metodologi Penelitian, Persiapan bagi Peneliti Pemula*. Pekanbaru: Faperika Press. P. 113

is less than 100, it is better to take all the population to be sample.⁵ Husaini and Purnomo state that the research that use all population is called total sampling or census.⁶ Census is research survey where the researcher takes all population as it respondent. Wiliam and Marilynn state that census is generally taken to mean a complete enumeration of all of the units that possible could be included in the investigation (sometimes called a population or universe), whereas a sample refers to a partial enumeration of the eligible units.⁷ So, the researcher used total sampling and divided into two classes. One of the classes was the experimental group, and the other was the control group. The experimental group VII A consisted of 15 students, and control class VII B consisted of 15 students. Those are as the sample of these research number 30 students.

F. The Technique of Collecting Data

The researcher used test to collect the data in this research. The test was *oral presentation test*. Oral presentation used to collect the data on students' speaking ability. The teacher gave some topics to students, then the students were choosen and prepared their content of the topics. After that, the students spoke individually by oral presentation, then the teacher recorded them. Test was divided into two:

⁵Wildatul Khairiah. 2012. "The Effect of Choral Reading Strategy toward Students' Reading Fluency at the Second year Students of Islamic Junior High School Kuntu Regency of Kampar." Unpublished Thesis.

⁶Husaini Usman and Purnomo Setiady Akbar. 2008. *Pengantar Statistika*. Jakarta: Bumi Aksara.

⁷William And Marilynn. 2002. *Principles And Methods of Social Research*. New Jersey: Mahwah.

a. Pre-test

Pre-test was conducted to know about the students' speaking ability before applying oral questionnaire technique. It was done by giving students some topics and asking the students about the topic. The test was administered to VII A as experimental class and VII B as control class.

b. Post-test

Post-test was used to collect data about students' speaking ability in descriptive text after getting treatment for experimental class and after getting no treatment in control class. The test was administered to VII A as experimental class and VII B as control class.

To find out whether there is a significant difference of speaking ability between student who were taught by using oral questionnaire technique and student who were taught by using conventional method at the seventh grade of MTs Hidayatul Muta'alim Mengkirau, Meranti Regency, the speaking ability was evaluated by two raters. The researcher gave the recorded of students' speaking ability before and after using oral questionnaire technique for experimental class to the raters. And the researcher also gave the recorded of students' speaking ability before and after using conventional method for control class to the raters. The raters evaluated the students speaking ability by using four categories of speaking ability. Then, the raters classified the students' score as bellow:

Classification of students' score in speaking as follows:⁸

Table III. 3

Classification of the Students' Score in Term of the Level Ability

Value	Score	Mean score	Classification
81-100	5	4,01-5	Excellent
61-80	4	3,01-4,00	Good
41-60	3	2,01-3,00	Enough
21-40	2	1,01-2,00	Less
0-20	1	0-100	Fail

G. Technique of Data Analysis

In order to find out wheter there was a significant difference of using oral questionnaire, the data was analyzed by t-test formula. In analyzing the data, the researcher used score of post-test of obtained from nonequivalent control group design.

Before the post-test scores of obtained from nonequivalent control group design were analyzed, the researcher tested the scores to see whether they were normally distributed this analyzes was important to decide whether or not. Paramatric and nonparamatric data analyses could be employed.

Also, in order to answer the question from the formulation of the problem, the researcher analyzed the data by using t-test⁹ to know whether the result of the research is statistically significant. The data were calculated by using SPSS 17.0. First, the researcher found the difference between post-test score and pre-test score in order to know the gain of each group.¹⁰ Post-test score was subtracted pre-test score and it was

⁸Lesson Plan of MTs Hidayatul Muta'alim Mengkirau.

⁹Hartono. 2010. *Statistik untuk Penelitian*. Yogyakarta: Pustaka Pelajar. P. 178.

¹⁰Suharsimi Arikunto. 2010. *Prosedur Penelitian: Suatu Pendekatan Praktik*. Jakarta: RinekaCipta, PP. 350-352.

equivalent with gain score. After that, the researcher should find the t-score to analyze the data. After computing t-test, it is necessary to obtain the degree of freedom that was used to determine whether the t-score is significant or not. The t-obtained value was consulted with the value of t-table by using degree of freedom. The formula of degree of freedom is as follows:¹¹

$$df = (N_1 + N_2) - 2$$

where:df : the degree of freedom

N_x : the number of students in experimental class

N_y : the number of students in control class

If the researcher had consulted the t-obtained value with t-table by using degree of freedom, she concluded that if $t_0 < t\text{-table}$, H_0 is accepted. It represents that there is no significant effect of using Oral Questionnaires Technique on the students' speaking ability of the seventh grade students at MTs Hidayatul Muta'allim. If $t_0 > t\text{-table}$, H_a is accepted. It means that there is a significant effect of using Oral Questionnaires Technique on the students' speaking ability at MTs Hidayatul Muta'allim.

H. Validity and Reliability of the Test

1. Validity of the Test

According to Brown, a test is a method of measuring a person's ability, knowledge, or performance in a given domain.¹² According to Gronlund (in Brown), validity is the extent to which inferences made from

¹¹Hartono. 2009. *Statistik untuk penelitian*. Yogyakarta: Pustaka pelajar.

¹²H. Douglas Brown, 2003. *Language Assessment: Principles and Classroom Practices*. San Francisco: San Francisco State University. p. 3.

assessment result are appropriate, meaningful, and useful in terms on the purpose of the assessment. According to Hughes,¹³ "a test is said to be valid if it measures accurately what it is intended to measure". Based on some experts above, the researcher concludes that a test can be said valid if it is really measured person's ability appropriately. Furthermore, Gay states that there are three kinds of validity. They are content validity, criterion-related validity, and construct validity.¹⁴

In this research, the researcher used content validity. Each topic was established by experienced teacher and supervisor. Brown states that content validity is if a test actually samples the subject matter about which conclusions are to be drawn, and if it requires the test taker to perform the behavior that is being measured.¹⁵ In conclusion, the test was given to the students based on the material that they have learned.

2. Reliability of the Test

Reliability is the measuring of test that is consistent and dependable.¹⁶ It means that the test should consistently measure the person's ability. Furthermore, Brown states that there are two scoring processed in reliability. They are inter-rater reliability and intra-rater reliability. Inter-rater reliability occurs when two or more scores yield inconsistent scores of the

p. 26. ¹³Arthur Hughes. 2005. *Testing for Language Teacher*, Cambridge: Cambridge University Press.

¹⁴L.R. Gay and Peter Airasian, *Op. Cit.*, pp. 163-167.

¹⁵H. Douglas Brown, *Op Cit.*, p. 22.

¹⁶H. Douglas Brown, *Ibid.*, p. 20.

same test. Intra-rater reliability is common occurrences for classroom teachers because of the unclear scoring criteria, toward particular 'good' and 'bad' students, or simple carelessness.

In this research, the researcher used inter-rater reliability. It means that the scores of the test were evaluated more than one person. The students' speaking scores were evaluated by two raters. The raters are lecturers of UIN SUSKA RIAU. They were Yasir Amri, M. Pd and Paidi Gusmuliana, M. Pd.